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STEM Digital Technology Program – Engaging students and empowering teachers

To ensure South Australia keeps pace with technological developments to advance its economic prosperity, the teaching of science, technology, engineering, and mathematics (STEM) in schools is vital.

SACOME's STEM Digital Technology program empowers educators to teach STEM skills, increases student interest in technology-based career pathways, and supports the future-skilled talent pipeline crucially needed for the South Australian resources sector and other essential industries. Importantly, the program is aligned with the Australian Curriculum.

SACOME in partnership with Catholic Education South Australia (CESA) initiated the STEM Digital Technology pilot in Term two at six metropolitan and regional schools with the support of industry partners BHP, Nyrstar, Hillgrove Resources, Fortescue and SIMEC Mining.

The pilot has proven highly effective in engaging both teachers and students. The program's success can be attributed to well-organised professional development, extensive resources, and continuous support, which empowered teachers to deliver impactful and meaningful lessons.

By using a mix of qualitative and quantitative measures, along with learning analytics from the Grok Academy platform, the pilot clearly demonstrated increased student engagement and improved learning outcomes.

Feedback from teachers and school leaders underscores the program's role in boosting teachers' confidence and skills in teaching the Digital Technologies curriculum. Additionally, the incorporation of industry connections has enriched the learning experience, offering students valuable insights into how technology is applied in the real world and exploring future career pathways.

The pilot's collaborative approach also created a supportive community of educators, which has been essential for the program's successful implementation.

SACOME continues to call for the South Australian Government to partner with us providing the program at all government schools across the state to support the pipeline of talent required to fulfil the state's economic ambitions.

Quotes attributable to:

Rebecca Knol, CEO – SACOME

“Empowering students with a STEM education is an investment in their future and an investment in our state.”

“The pilot was extremely successful and has paved the way for SACOME to continue to advocate for its rollout across South Australian Government Schools.”

“Working with St Barbara’s Parish School in Roxby Downs, St Mark’s College in Port Pirie, St Francis de Sales College in Mt Barker, Caritas College in Port Augusta, Samaritan College in Whyalla and St Aloysius College in Adelaide, SACOME was able to test the program in metropolitan and regional settings.”

Dr Neil McGoran, Executive Director – Catholic Education South Australia (CESA)

“Our partnership with SACOME has been excellent for our young people and for our staff.”

“For young people, it’s been a chance to connect STEM learning to the careers that await them in the future, and to understand ways they can use the knowledge and skills they are developing now in unique ways to create a better world.”

“Our staff have found great value in the lesson resources and plans that have been provided to them. They have been able to use them to engage the students and to contemplate how STEM skills can be used in industry and careers in the future.”

Lachlan Wallace, CEO & Managing Director – Hillgrove Resources

“As a local employer in the region, it’s very important for us to see a pathway for children to be encouraged into STEM as a career, particularly in the resources sector. This is not only valuable for our company but for the broader resources sector and for the state’s economy, as we continually strive to decarbonise towards an electrified future.”

Marella Hannaford, Year 2 Teacher – St Francis de Sales College, Mt Barker

“For someone who is not overly confident with robotics I find the program easy to understand and follow. It’s relevant to where the students are at with their learning and what they are capable of. It’s also challenging enough that they find it really engaging.”

Travis Ireland, Year 6 Teacher – St Francis de Sales College, Mt Barker

“I’ve found the resources easy to use and navigate. It’s been good to be able to extend the students by letting them go through the program at their own pace, and if they go a little bit ahead, I have time to work with students who find it a bit more challenging.”

[View SACOME’s STEM Digital Pilot Video](#)

[Access SACOME’s STEM Digital Pilot Image Library](#)

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About SACOME

The [South Australian Chamber of Mines and Energy](#) is the leading industry association representing companies with interests and connections to the South Australian resources and energy sector.